

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
23 December 2004 (23.12.2004)

PCT

(10) International Publication Number  
**WO 2004/111739 A1**

(51) International Patent Classification<sup>7</sup>: **G05D 7/00**,  
16/00, F16K 5/00, 11/06

(21) International Application Number:  
PCT/SE2003/000995

(22) International Filing Date: 13 June 2003 (13.06.2003)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant and

(72) Inventor: ENGSTRÖM, Nils, G. [SE/SE]; Rönningevä-  
gen 3, S-144 61 Rönninge (SE).

CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (util-  
ity model), DE, DK (utility model), DK, DM, DZ, EC, EE  
(utility model), EE, ES, FI (utility model), FI, GB, GD, GE,  
GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,  
LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN,  
MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU,  
SC, SD, SE, SG, SK (utility model), SK, SL, TJ, TM, TN,  
TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM,  
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),  
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,  
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,  
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

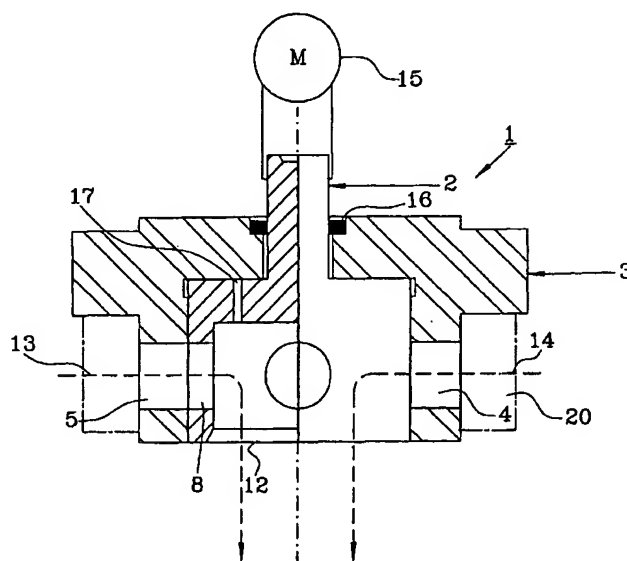
— with international search report

(74) Agent: EHRNER & DELMAR PATENTBYRÅ AB;  
Box 103 16, S-100 55 Stockholm (SE).

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(81) Designated States (national): AE, AG, AL, AM, AT (util-  
ity model), AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA,

(54) Title: LIQUID FLOW REGULATING DEVICE AND DYNAMOMETER TESTING DEVICE



(57) Abstract: The present invention relates to a regulating device (1) for control of flow and/or pressure, including a housing (3) enclosing a movable inner member (2) which is provided with a passage corresponding to the housing inlet. The inlet comprises at least two ports (4, 5, 6, 7) which are spaced apart with a circumferentially equal distance, and the passage comprises apertures (8, 9, 10, 11) positioned correspondingly. The inner member (2) is fitted with radial play inside the housing so that in operation a leakage of the liquid to be regulated will enter between the inner member and the housing so that these elements are in a floating relationship, whereby the inner member is relieved from radial forces in operation. The invention also concerns a dynamometer testing device.